S O L I D W A S T E A S S E S S M E N T

Q U E S T I O N N A I R E & G U I D E L I N E S

(California Water Code Section 13273.1)

This document is divided into three parts, as follows:

It is recommended that this entire document be used by those preparing a Solid Waste Exemption Questionnaire.

INTRODUCTION

On September 22, 1987, the Governor signed Assembly Bill (AB) 1897 (Chapter 932, Statutes of 1987) which added Sections 13273.1-13273.3 to the California Water Code (CWC). Section 13273.1 allows the operator of a solid waste disposal site subject to CWC Section 13273 (Calderon legislation) to request an exemption by submitting a Solid Waste Assessment Questionnaire for evaluation by the appropriate Regional Water Quality Control Board (Regional Board). Based on this questionnaire, the Regional Board may exempt the operator from all or a portion of the Solid Waste Water Quality Assessment Test (SWAT) program requirements.

The questionnaire is applicable only to those solid waste disposal sites which contain less than 50,000 cubic yards of waste and are not known nor suspected of containing hazardous substances, other than household hazardous wastes [Section 13273.1(b)]. Those disposal sites which have been assigned to Ranks 1 and 2 pursuant to CWC Section 13273 are not eligible for an exemption from the SWAT requirements.

The questionnaire is intended to provide the Regional Boards with sufficient information to make a determination of ". . .whether or not the site has discharged hazardous substances which will impact the beneficial uses of water" [Section 13273.1(c)]. There must be adequate data to support such a finding, and the operator must be responsible for providing and obtaining all necessary data.

If the Regional Board determines that the disposal site has not discharged hazardous substances which pose a threat to water quality, the Regional Board shall notify the operator that a SWAT report is not required pursuant to [Section 13273.1(c)].

If the Regional Board is not able to make the determination specified in 13273.1(c), "the operator shall submit all, or a portion of, a solid waste water quality assessement test." [Section 13273.1(d)], as specified by the Regional Board.

Under CWC Section 13273 ". . . a regional board may reevaluate the status of any solid waste disposal site ranked pursuant to Section 13273, including those sites exempted pursuant to Section 13273.1, and may require the operator to submit or revise a solid waste water quality assessment test after July 1, 1989".

REQUIREMENTS FOR SUBMITTAL OF SOLID WASTE ASSESSMENT QUESTIONNAIRE

Submit the questionnaire only if:

- The operator of the disposal site wishes to be considered for exemption from performing all or part of the SWAT requirements, and
- The site contains less than 50,000 cubic yards of waste [Section 13273.1(b)], and
- The site is not known or suspected to contain hazardous substances, other than household hazardous wastes [Section 13273.1(b)].

The questionnaire must be submitted to the appropriate Regional Board at least 24 months prior to the SWAT due date specified for the site to qualify for Regional Board review and consideration for exemption [Section 13273.1(a)]. An exception to this timing is for operators of Rank 3 sites who must submit their solid waste assessment questionnaire no later than July 1, 1988 [Section 13273.1(f)]. The SWAT report for those Rank 3 sites for which a questionnaire is submitted and the exemption request is denied is due no later than July 1990.

GENERAL REQUIREMENTS FOR COMPLETING THE QUESTIONNAIRE

- "The questionnaire shall contain, but not be limited to, a characterization of the wastes, size of the site, age of the site, and other appropriate factors." [Section 13273.1(e)].

- The questionnaire is intended to be based largely on existing data. It may be necessary to perform limited field work (for example, measurements of waste pile boundaries and depth, analysis of waste, a photographic survey of site, etc.) to document certain responses.

- The operator is not required to complete all items on the questionnaire if information is not known or is not available. However, the Regional Board must have sufficient information to make the determination specified in Section 13273.1(c) in order to grant an exemption. Thus, it is to the operator's advantage to provide as much relevant data as possible.

- The information needed to make the determination specified in Section 13273.1(c) will vary considerably on a site-by-site basis. For example, if age, volume, and characteristics of waste are known for the lifetime of the site, it may not be necessary to provide as much data on site geology.

- The preparer of the questionnaire must fully reference all sources of information, such as maps, records, literature, personal communication, etc. If data are unpublished, copies should be submitted to the Regional Board.

- The operator need not submit relevant documents which have previously been submitted to the Regional Board (for example, under Subchapter 15 requirements). However, the reference to the previously submitted documents must be specific in regards to the name of the document and page number(s) on which the relevant information can be found.

- The Regional Board may require ". . . additional information, as needed, or require onsite verification in order to render a decision . . ." [CWC Section 13273.1(a)].

SOLID WASTE ASSESSMENT QUESTIONNAIRE

The questionnaire is in outline form and is designed to be used in conjunction with the attached guidelines. The guidelines provide recommendations on how thorough the data should be and what types of data might be appropriate.

I. General Site Information

A. Site name.

B. Owner.

C. Operator.

D. Site Location.

II. Minimum Requirements

If the answer to either "A" or "B" below is yes, the site owner is not eligible to submit the Solid Waste Assessment Questionnaire.

A. Is there greater than 50,000 cubic yards of waste landfilled at the site?

B. Are there any known or suspected hazardous substances contained in the site, other than household hazardous wastes?

III. Preparer Certification and Experience

A. List name(s) and credentials

B. What is preparer's experience with this site?

C. What is preparer's background with solid waste site assessment?

D. Who is preparer's employer?

IV. Site History

A. Is the site currently open or closed?

B. Is or was the site open to the public, or for private use only?

C. Describe the current and past use of the site and neighboring lands which could be affected.

D. Identify types of users over the lifetime of the site and give approximate percentage of use.

V. Volume of Waste

A. What is the estimated in-place volume of landfilled wastes at the site in cubic yards?

B. What is the design capacity of the site in cubic yards?

VI. Waste Characterization

A. What wastes were disposed of at site? List type and quantity (in cubic yards, gallons, or tons, and whether quantity is actual or estimated).

B. What records of waste disposal have been kept? Provide dates for periods when records were kept.

C. Has the waste been physically characterized via trenching or drilling?

VII. Site and Operational Characteristics

A. What methods of fill operations were utilized for waste disposal at the site?

B. Provide a full description for each operation method.

C. Is there any history or indication of fluids (e.g., leachate, seeps, springs, etc.) coming from any of the waste disposal areas?

D. Describe all present and past manmade drainage systems on, through, and adjacent to the site.

VIII. Regional Geology

A. Give a brief synopsis of the regional geology, including major rock units, structural trends, and special features.

B. Has there been any significant Holocene fault movement in the vicinity?

IX. Site Geology

A. Describe the geology of the site and within one mile of site.

B. Describe the nature of all faults, fractures, folds, bedding contacts, and formation characteristics in terms of their ability to retard fluid movement or to act as pathways of fluid movement.

C. Are there landslides or other potential geologic hazards on or near the site?

D. Has there been any Holocene fault movement on or adjacent to the site?

X. Hydrology

A. Describe precipitation characteristics at the site.

B. Describe all surface waters at the site.

C. Subsurface - Characterize vadose and ground water zones.

D. Are there any existing wells on or near (within one mile of) the site? If yes, describe each.

SOLID WASTE ASSESSMENT QUESTIONNAIRE GUIDELINES

The following guidelines are in the same outline form as the questionnaire and repeat each of the questions in the questionnaire. The guidelines provide recommendations on what types of data and information should be included in the responses. These data may vary considerably on a site-by-site basis.

All responses should be in the same numerical order as the questionnaire. Each response should be clearly numbered to correspond with the question. If a question is not answered, the response should indicate the reason why no response was provided (Example: the data necessary to respond to a question is unavailable.).

I. General Site Information

A. Site name.

1. Current name.

2. Did the site have any previous or other names? If so, list, with corresponding dates when these names were used.

B. Owner.

1. Current name, mailing address, and telephone number.

2. Were there previous owners? If so, list names, dates of ownership, current mailing address, and telephone number (if available).

C. Operator.

1. Current name, mailing address, and telephone number.

2. Were there previous operators? If so, list names and corresponding dates of operation. If available, give current mailing address and telephone number of all previous operators.

D. Site Location.

1. Specify street address or RFD box number, if applicable, and location in relation to major roads, highways, communities, etc. Include map.

2. List County Assessor's parcel number(s), and/or Township, Range, Section, and quarter section.

3. Provide topographic map showing location of landfill. Map should be at an appropriate scale to clearly show local topographic features, drainage patterns, etc.

4. Show exact location of waste disposal area boundaries in relation to property boundaries.

5. Provide recent photographs of site as well as any available past photographs showing site changes.

II. Mininum Requirements

If the answer to either "A" or "B" below is yes, the site owner is not eligible to submit the Solid Waste Assessement Questionnaire.

A. Is there greater than 50,000 cubic yards of waste landfilled at the site?

B. Are there any known or suspected hazardous substances contained in the site, other than household hazardous wastes?

III. Preparer Certification and Experience

A. List name(s) and credentials (for example, Registered Geologist, Certified Engineering Geologist, Registered Civil Engineer, etc.).

B. What is preparer's experience with this site? Provide a brief statement.

C. What is preparer's background with solid waste site assessment?

1. Has the preparer performed a SWAT?

2. Subchapter 15 monitoring?

3. Report of waste discharge?

4. Other?

D. Who is preparer's employer? Provide name, current address, and current telephone number.

IV. Site History

A. Is the site currently open or closed?

1. When did the site first open?

2. Were there any periods of time when the site was not operated after its initial opening? If so, give time periods.

3. If the site is closed, give date of closure, final treatment or closure procedures (e.g. mixing, disposal, burial, etc), final cover material and specifications, and all other relevant data.

4. Submit copies of all permits and/or regulatory orders for the site.

B. Is or was the site open to the public, or for private use only?

1. Describe current and past incoming waste inspection practices.

2. Describe current and past security practices regarding unsupervised/unauthorized waste disposal.

3. Specify the operating hours of the site, since first opening (Example: from opening date to July 1973 accepted waste 2 days a week for 5 hrs/day. From August 1973 to present accepting waste 5 days a week 8 hrs/day.)

C. Describe the current and past use of the site and neighboring lands which could be affected. Include types of industry, agriculture, military activity, recreation, etc. and population centers in the vicinity of the site.

D. Identify types of users over the lifetime of the site and give approximate percentage of use.

1. Residential

2. Commercial

3. Industrial

4. Agricultural

5. Other (specify)

V. Volume of Waste

A. What is the estimated in place volume of landfilled waste at the site in cubic yards?

1. Were direct field measurements made to determine waste volume?

a. If yes, specify method and details of how measurements were made (for example, excavated pits at 4 locations along perimeter of waste and/or borings at deepest portion of waste pile).

b. Provide locations of field measurements on site plan or map.

2. Were indirect field measurements made to determine waste volume?

a. If yes, specify method and details of how measurements were made (for example, volume of excavated site prior to receiving waste, minus the remaining unfilled volume).

b. Supporting records or drawings must be provided.

3. Was the volume determined by tonnage or yardage records?

   a. If yes, specify method and details.

   b. Provide records, if available (e.g. weigh slips required for all waste loads prior to dumping).

4. Was the volume determined by some method other than those indicated above? If so, specify method and details.

B. What is the design capacity of the site in cubic yards?

VI. Waste Characterization

A. What wastes were disposed of at site? List type and quantity (in cubic yards, gallons, or tons, and whether quantity is actual or estimated).

1. Residential (household wastes, etc.)

2. Commercial

3. Agricultural

   a. Empty pesticide containers

   b. Empty herbicide containers

   c. Animal wastes

   d. Other agricultural wastes (specify)

4. Industrial

   a. Automotive repair wastes

   b. Plating shop wastes

   c. Electronics manufacturing wastes

   d. Dry cleaner wastes

   e. Cannery wastes

   f. Other industrial wastes (specify)

5. Septage

   a. Chemical toilets

   b. Septic tank pumpings

6. Other

B. What records of waste disposal have been kept? Provide dates for periods when records were kept.

1. Trip tickets

2. Weigh tickets

3. Gate receipts

4. Other (specify)

C. Has the waste been physically characterized via trenching or drilling? If yes, provide the following information:

1. Types of waste

2. Density of Waste

3. Moisture Content

4. Presence of liquid

5. Presence of gases

6. When were these data collected?

VII. Site and Operational Characteristics

A. What methods of fill operations were utilized for waste disposal at the site?

1. Trench and fill

2. Gully, canyon, or depression fill

3. Uncontained area fill and cover

4. Other

B. Provide a full description for each operation method.

1. Location on site

2. Date(s) utilized

3. Describe waste placed in each location.

4. Was burning used to reduce waste volume? If so, how often and when?

5. How often and how much cover materal was applied?

6. What was source of cover material?

7. Date final cover received?

8. Has the cover soil ever been analyzed?

C. Is there any history or indication of fluids (e.g., leachate, seeps, springs, etc.) coming from any of the waste disposal areas?

1. Are there or have there ever been stains from leachate or fluids during summer months?

   If yes, how large an area, (e.g., square feet, football fields, etc.)

2. Are there visible leachate or fluid flows during winter or spring months? If yes, approximately at what flow rate (e.g., gallons/minute, gallons/day, etc.)

3. Where does the leachate or fluid run-off drain to?

   a. Local drainage

   b. Pond

   c. Leachate collection system

   d. Other (specify)

4. Provide analysis of leachate, if available.

D. Describe all present and past manmade drainage systems on, through, and adjacent to the site.

1. Indicate type of system(s)

   a. Series of channels

   b. Sheet flow to a collector

   c. Sedimentation basins

   d. Benching

   e. Other (specify)

2. Provide photographs, sketches, or plans for the above.

3. Are there any waste or filled areas that have had either past or present off-site drainage through them?

4. Is there any evidence of erosion into or through the waste?

5. Has a water balance been performed for the site? If yes, provide calculations and assumptions.

VIII. Regional Geology

A. Give a brief synopsis of the regional geology, including major rock units, structural trends, and special features.

1. Provide geologic maps showing regional geology, topography, faults, and other relevant data.

2. Describe subsurface geology, including major aquifers or water-bearing zones. Provide geologic cross-sections, if available.

B. Has there been any significant Holocene fault movement in the vicinity?

IX. Site Geology

A. Describe the geology of the site and within one mile of site.

1. Provide geologic maps and cross-sections at an appropriate scale which show: formation contacts, faults and fractures, thickness and structural orientation of beds, and other relevant features. Also show location of borings, trenches, monitoring wells, piezometers, berms, etc.

2. Provide subsurface data from borings, trenches, well logs, etc.

3. Describe soil characteristics and provide soil surveys, if available.

B. Describe the nature of all faults, fractures, folds, bedding contacts and formation characteristics in terms of their ability to retard fluid movement or to act as pathways of fluid movement.

C. Are there landslides or other potential geologic hazards on or near the site? If so, describe.

D. Has there been any Holocene fault movement on or adjacent to the site?

X. Hydrology

A. Describe precipitation characteristics at the site.

1. What is the average annual precipitation for the site vicinity?

2. What is the projected 100-year, 24-hour precipitation, in inches?

3. During what months does most precipitation occur?

4. Does precipitation normally occur as snowfall, intense rainfall, or infrequent showers?

5. What is the average annual evaporation and months that most evaporation occurs?

B. Describe all surface waters at the site.

1. Describe all surface water bodies, including perennial and intermittent streams, springs, seeps, lakes, etc. and drainage patterns on and within one mile of the site. Provide topographic maps, photographs, etc. showing locations of surface water features and drainage patterns.

2. Specify if any part of the site lies within a floodplain.

3. Provide data for surface water quality samples, if available.

4. Have there been any reports of surface water contamination? If so, describe.

C. Subsurface - Characterize vadose and ground water zones.

1. Describe flow through the vadose zone.

(a) Is flow predominantly vertical or lateral?

(b) Is flow predominantly through fractures? Through unconsolidated material with primary permeability? Along geologic contacts?

2. Describe ground water regime under and within at least one mile of site:

(a) Describe thickness, depth, lateral extent, and major aquifers and characteristics of uppermost aquifer.

(b) Is ground water flow through primary or secondary permeability?

(c) Is the aquifer confined or unconfined?

(d) Where does the aquifer receive recharge?

(e) Describe flow patterns in the aquifer.

(f) Are there any known barriers which would inhibit fluid movement in the aquifer?

(g) Are there known conduits through which fluid could reach the aquifer (e.g., faults, solution channels, etc)?

D. Are there any existing wells on or near (within one mile of) the site? If yes, describe each.

1. Location on or off site (for example, 50 feet west of site entrance gate or 300 feet northwest of northernmost site corner). Provide map(s) showing location of wells.

2. What is the purpose of each well:

   a. Domestic?

   b. Agriculture?

   c. Dedicated monitoring well?

   d. Other (specify)?

3. Have there been any reports of well contamination?

4. Describe any water sample analyses performed on wells.

   a. Which wells were sampled and analyzed?

   b. What were analysis parameters and results?

   c. How often and when were analyses performed?

5. What are as-built construction details of wells? (Provide driller's logs, if available).

   a. Total depth of well

   b. Casing materials (specify whether steel, PVC, or other)

   c. Length and locations of screens

   d. Gravel pack materials and length

   e. Sanitary seal in place and thickness

   f. Water encountered and depth

6. Are there any abandoned wells within 500 feet of the site?

   a. Provide location(s)

   b. What was previous use of well(s)?

   c. Are abandonment procedures known? If so, describe.